

# Executive Summary



Competition in the world of convergence is allowing any carrier to transmit voice, data, and video over a single digital infrastructure. The role the City of Detroit has in defining the transition of its telecommunications infrastructure is critical. The potential payoffs are tremendous for the City, its corporate citizens, and the community.

The City of Detroit currently has disparate voice, data and video networks consisting of over 10,000 circuits interconnecting buildings and various departments throughout the City. Annual connectivity costs, excluding usage, are over \$6,000,000. Presently, there is no city-wide network strategy, telecommunications cost control nor strategic utilization of the public right-of-way. Departments and software applications have been interconnected as needs have arisen, which has developed into a complex interconnection of circuits, networks and systems.

This *Telecommunications Network Audit & Strategy Report* has identified the voice, data and video circuits that are currently being utilized and has established a bandwidth baseline for future network architectures. Several alternative network architectures have been analyzed and one platform has surfaced that can prepare the City for the 21st Century "New Economy." It has become clear, as seen by cities throughout the country, that developing initiatives in telecommunications policies, identifying the importance of advanced communications infrastructure, and access to high-performance bandwidth are all catalysts for economic growth in the e-business, networked economy.

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The City of Detroit has several major strategies available ranging from letting market forces prevail to building a municipal-owned fiber optic telecommunications network. The approaches that can be taken include:

➤ ***Business as Usual***

- Continued high cost and inadequate infrastructure

➤ ***Leverage the City's Purchasing Power***

- \$6,000,000 for connectivity costs only, usage is additional - *bid existing services*
- Competitive procurement can introduce new carriers to Detroit - *promote vendor competition*

➤ ***Develop a Fiber Optic Network***

- Establish strategic partnership for a cooperative advanced network - *establish task force*
- Negotiate capacity as part of compensation – *Comcast cable franchise agreement*
- Leverage PLD conduit infrastructure - *quick construction for carrier*

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We recommend the City pursue the following initiatives for satisfying the inefficiencies in the current telecommunications infrastructure:

- Develop and deploy a fiber optic wide area network (WAN), leveraging the City's Public Lighting Department's conduit infrastructure asset. Specifications developed should encourage carrier/city partnerships and "condominium" arrangements.
- Deploy city-owned telecommunications systems at Coleman A. Young Municipal Center, Cadillac Tower and Herman Kiefer Health Complex to eliminate Centrex costs.
- Deploy city-owned voice messaging servers to eliminate voice mail service costs.
- Initiate technical discussions with Comcast for purposes of fiber optic geographic diversity, and redundancy for connectivity within the provisions of the Cable Franchise Agreement. Comcast has a comprehensive fiber optic network that can be leveraged for fiber optic network resiliency.

The following analysis suggests improved communication efficiencies and appropriate return on investments.